IN THE CLAIMS

Please amend the claims as follows:

Claim 1. (Currently Amended) A cone crusher comprising:

a stationary ~~concave~~ liner, wherein a substantially vertical axis passes through the stationary liner;

a mounting base as a movable element which is movable about [[a]] the substantially vertical axis, wherein the mounting base ~~and~~ is capable of approaching an inner periphery of said stationary ~~concave~~ liner and separating therefrom; and

a mantle liner fixed to said mounting base and positioned relative to said stationary ~~concave~~ liner to form a crushing chamber therebetween, said crushing chamber having an inlet and an outlet, wherein a crush material is sequentially crushed in first, second and third portions ~~regions~~ of the crushing chamber, thereby defining a direction of movement of said crush material from said inlet of said crushing chamber to said outlet of said crushing chamber,

wherein said ~~concave~~ liner comprises:

a first area surface at said first portion of said crushing chamber ~~region~~ and having a length of T to √2T in the direction of movement of the crush material from [[an]] the inlet of said crushing chamber to [[an]] the outlet thereof, said first area surface facing said crushing chamber, wherein T is a predetermined value;

a second area surface facing said crushing chamber at said second portion of said crushing chamber ~~region~~; and

a third area surface facing said crushing chamber at said third portion of said crushing chamber ~~region~~,

whereby said first to third area surfaces are sequentially arranged in the direction of movement of the crush material from the inlet of said crushing chamber to an outlet thereof,

and wherein said mantle liner comprises:

a first tapered surface, wherein a length of a perpendicular line from said first area surface to said first tapered surface at a ~~the inlet~~ side of said first <u>portion of said crushing chamber closest to said inlet</u> ~~region~~ is greater than T, a cross angle of said first tapered surface is less than 20° with respect to said first area surface, and an inclination angle of said first tapered surface is greater than 60° relative to [[the]] <u>a</u> horizontal plane;

a second tapered surface, wherein a length of a perpendicular line from said second area surface to said second tapered surface at <u>a</u> ~~the inlet~~ side of said second <u>portion of said crushing chamber closest to said inlet</u> ~~region~~ is greater than 0.5T and a cross angle of said second tapered surface is 5° to 10° with respect to said second area surface; and

a third tapered surface having an inclination angle of 45° to 50° relative to the horizontal plane;

whereby said first to third tapered surfaces are sequentially arranged from the inlet of said crushing chamber in the direction of movement.

Claim 2. (Original) The cone crusher according to Claim 1, wherein said third tapered surface has a cross angle of 2° to 3° with respect to said third area surface.

Claim 3. (Previously Presented) The cone crusher according to Claim 1, wherein said second area surface has a length in the direction of movement of T to $\sqrt{2}$T and said third area surface has a length in the direction of movement of T/$\sqrt{2}$ to T.

Claim 4. (Previously Presented) The cone crusher according to Claim 1, wherein said first tapered surface has a length in the direction of movement of T/$\sqrt{2}$ to T.

Claim 5. (Previously Presented) The cone crusher according to Claim 1, wherein said second tapered surface has a length in the direction of movement of √2T to 2.4T.

Claim 6. (Previously Presented) The cone crusher according to Claim 1, wherein said third tapered surface has a length in the direction of movement of T to √2T.

Claim 7. (Currently Amended) The cone crusher according to Claim 1, wherein the curvature radius in a portion of the stationary ~~concave~~ liner between said first area surface and said second area surface is 1.4T to 1.7T.

Claim 8. (Currently Amended) The cone crusher according to Claim 1, wherein the curvature radius in a portion of the stationary ~~concave~~ liner between said second area surface and said third area surface is 6.4T to 9.7T.

Claim 9. (Previously Presented) The cone crusher according to Claim 1, wherein the curvature radius in a portion of the mantle liner between said first tapered surface and said second tapered surface is 1.7T to 2.0T.

Claim 10. (Previously Presented) The cone crusher according to Claim 1, wherein the curvature radius in a portion of the mantle liner between said second tapered surface and said third tapered surface is 13T to 16.3T.

Claim 11. (Currently Amended) A cone crusher comprising:

a stationary ~~concave~~ liner, wherein a substantially vertical axis passes through the stationary liner;

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a mounting base as a movable element which is movable about [[a]] the substantially

vertical axis and is capable of approaching an inner periphery of said stationary ~~concave~~ liner

and separating therefrom; and

a mantle liner fixed to said mounting base and positioned relative to said stationary

~~concave~~ liner to form a crushing chamber therebetween, <u>wherein the crushing chamber has an</u>

<u>inlet and an outlet, and the crush material moves from said inlet to said outlet, thereby</u>

<u>defining a direction of movement of said crush material from said inlet of said crushing</u>

<u>chamber to said outlet of said crushing chamber,</u>

wherein a crush material is crushed in the crushing chamber,

wherein said crushing chamber comprises:

a first <u>portion</u> ~~region~~ defined by said stationary ~~concave~~ liner and said mantle liner,

wherein a crushing surface of said mantle liner at an inlet for the crush material is 70° to 75°

to the horizontal plane and the angle between a crushing surface of said stationary ~~concave~~

liner and the crushing surface of said mantle liner at the inlet is 15° to 20°;

a second <u>portion of said crushing chamber</u> ~~region~~ defined by said stationary ~~concave~~

liner and said mantle liner, wherein the crushing surface of said mantle liner at a middle part

between the inlet and [[an]] the outlet for the crush material is 52° to 57° to [[the]] a

horizontal plane and the angle between the crushing surface of said ~~concave~~ liner and the

crushing surface of said mantle liner at the middle part is 5° to 10°; and

a third <u>portion of said crushing chamber</u> ~~region~~ defined by said stationary ~~concave~~

liner and said mantle liner, wherein the crushing surface of said mantle liner at the outlet for

the crush material is 45° to 50° to the horizontal plane and the angle between the crushing

surface of said stationary ~~concave~~ liner and the crushing surface of said mantle liner at the

outlet is 2° to 3°;

whereby said first to third <u>portions of said crushing chamber</u> ~~regions~~ are sequentially

arranged in [[a]] <u>the</u> direction of movement of the crush material from the inlet to the outlet.

Claim 12. (Currently Amended) The cone crusher according to Claim 11, wherein the

crushing surface of said <u>stationary</u> ~~concave~~ liner is approximately 90° in said first area, 57° to

62° in said second area, and 47° to 52° in said third area, to the horizontal plane.